



*United States Attorney  
Southern District of New York*

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June 24, 2024

**VIA ECF**

The Honorable Alvin K. Hellerstein  
United States District Judge  
Southern District of New York  
500 Pearl Street  
New York, New York 10007

**Re: *United States v. Hwang and Halligan,*  
S1 22 Cr. 240 (AKH)**

Dear Judge Hellerstein:

The Government respectfully writes to preclude defendant Bill Hwang from offering certain irrelevant, misleading, and argumentative slides and related testimony through his expert witnesses, Dr. Michael Johannes and Dr. Sunil Wahal. The Government expects Dr. Johannes and Dr. Wahal to testify later this week, after the Government has rested its case.

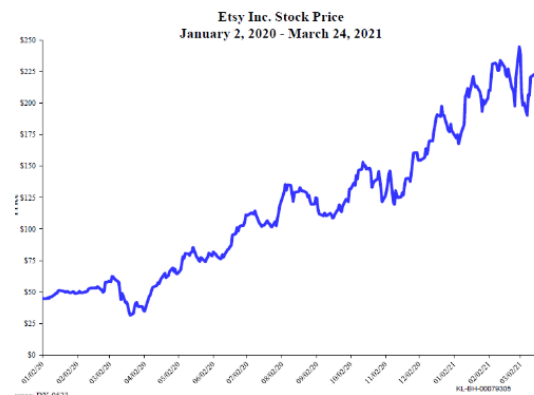
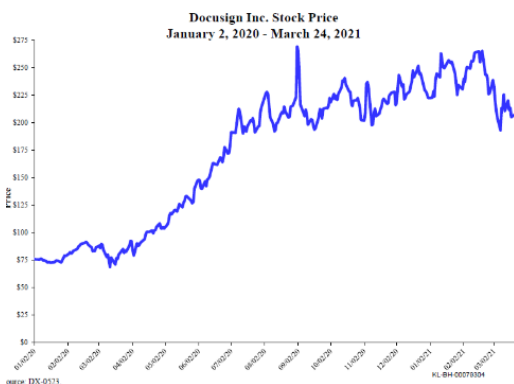
**I. The Government's Objections to Dr. Johannes's Testimony and DX 9151**

Based on defendant Hwang's recent disclosures, it appears that he will seek to admit 54 pages of charts and illustrations contained within DX 9151 through the testimony of Dr. Johannes. A copy of DX 9151 is attached hereto as Exhibit A.

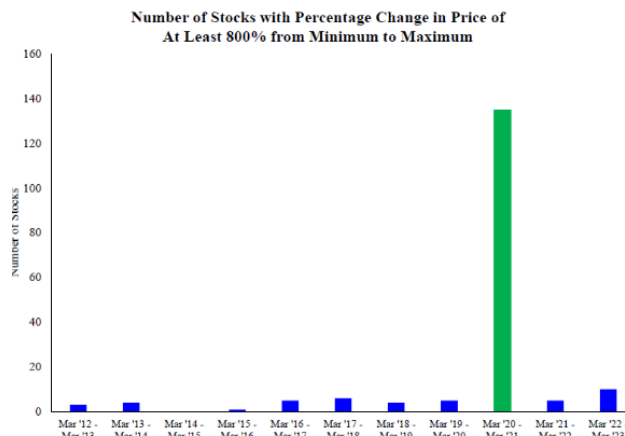
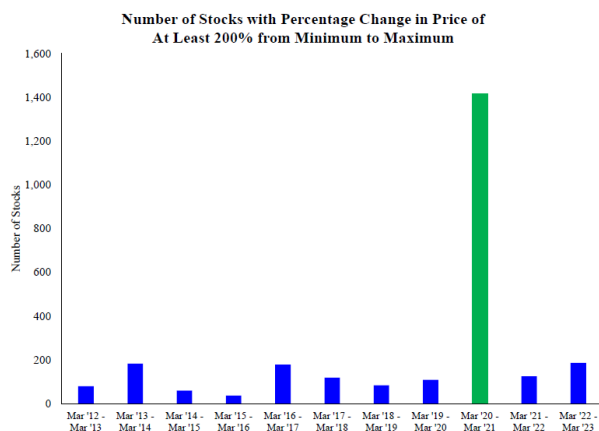
The Government has no general objection to the defendant offering the pages from DX 9151 that relate to Archegos's portfolio and the securities the Government has alleged Hwang schemed to manipulate. However, as explained below, much of DX 9151 concerns price changes of securities *other than* those in the Archegos portfolio, and the holdings of investment funds *other than* Archegos. Charts and testimony from Dr. Johannes on how other securities performed or what other funds did are irrelevant, serve only to distract the jury from the issues at trial, will waste a significant amount of time, and should be precluded under the Court's broad discretion under Rule 403 of the Federal Rules of Evidence. Separately, as the Government previously raised through *in limine* motions, the Court should preclude Dr. Johannes from engaging in purely speculative "what if" hypotheticals about how Archegos's portfolio could have performed in the fictitious scenario where the events during the week of March 22, 2021 did not occur as they did.

**A. The Court Should Preclude Evidence of Price Changes of Securities Other Than Those Held by Archegos (Pages 1 to 6 and 42 to 54 of DX 9151)**

The defendant seeks to present the jury with close to twenty different charts that reflect the price changes of thousands of securities *other than* those in the Archegos portfolio between early 2020 and March 2021. Some of the charts focus on a single security like the DocuSign and Etsy charts below:



(KL-BH-00079304-05). Others summarize the price changes of hundreds or thousands of securities, often without listing the names of the securities, as seen below:

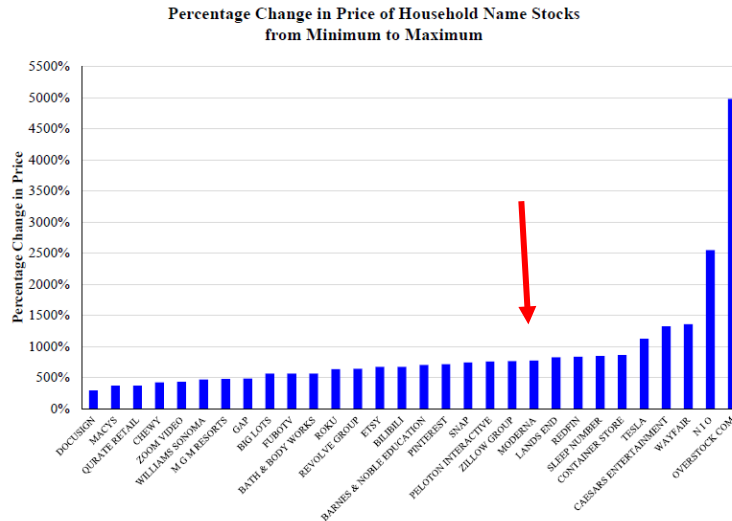


(KL-BH-00079263, 79265). All of the charts found at pages 1-6 and 42-54 of DX 9151 should be precluded under Rule 403 as irrelevant, likely to confuse or mislead the jury, and a waste of time.<sup>1</sup>

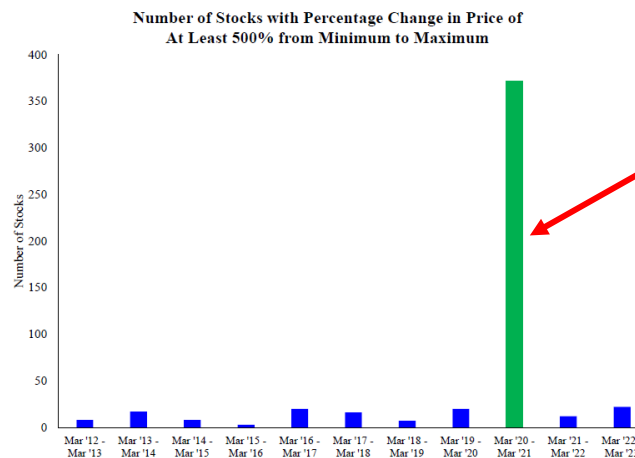
First, the price movements of individual securities not in the Archegos portfolio are irrelevant to the charges in this case. That the stock price of one or many companies may have

<sup>1</sup> The Government does not object to the admission of pages 7 to 10 of DX 9151, which compare certain of the Archegos securities to various indices, such as the Golden Dragon Index, the SPDR

trended upwards in 2020 and 2021 makes it no more or less likely that the defendant had the intent to manipulate the prices of the securities alleged in the Indictment. Take the company Moderna, for example, which is one of the securities listed as a “Household Name Stock” on page 6 of DX 9151 and included below:



(KL-BH-00079266). That Moderna’s stock price increased in 2020 can be explained by Moderna’s creation of one of the COVID vaccines. It offers no explanation for any increase in the prices of the Archegos securities. The company Nikola is another example. Nikola experienced a 670% increase in its stock price from March 2, 2020 to June 9, 2020, and so Nikola’s information is captured on page 4 of DX 9151, copied below:



(KL-BH-00079264). But during the same time period that Nikola’s stock was rising, the founder of Nikola was engaged in securities fraud (for which he was prosecuted in the Southern District of

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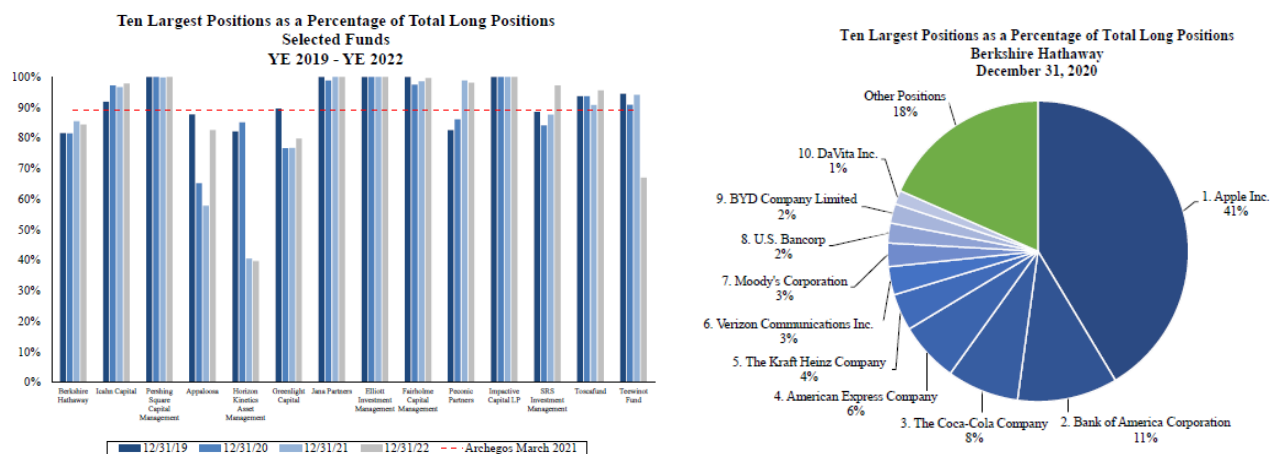
S&P Retail ETF, the Vanguard Information Technology Index, and the iShares US Consumer Discretionary ETF.

New York) and thus the increase in the Nikola stock price fails to offer an innocent explanation for any increase in the prices of the securities the Government has alleged Hwang schemed to manipulate. There is no dispute that some stocks go up and some stocks go down; the only stocks whose performance is relevant in this case are the stocks that were in Archegos's portfolio. In short, because there are endless examples of stocks whose prices increased from the COVID crater in March 2020 until March 2021, there is no reason to clutter the trial record with the price changes of thousands of securities that are not at issue in this case.

Second, even if this evidence had any marginal relevance (and it does not), presenting all of this voluminous evidence would likely confuse the jury and waste precious time. If Dr. Johannes were permitted to present his charts and illustrations to the jury, the Government would need to spend hours cross-examining Dr. Johannes on the differences between, on the one hand, the myriad securities listed in his various charts, and, on the other hand, the securities the Government has alleged Hwang schemed to manipulate. Instead, and to keep the trial moving, the Court should preclude the defendant from presenting information about the price movements of irrelevant securities.

***B. The Court Should Preclude Evidence of the Concentration of Investment Funds Other Than Archegos (Pages 12 and 13 of DX 9151)***

The defendant seeks to present two summary charts that depict the concentration of more than a dozen investment funds other than Archegos, including Berkshire Hathaway, between 2019 and 2022. These charts are included below:



(KL-BH-00079272-73).

These charts should be precluded under Rules 401, 402, and 403. First, the charts are irrelevant to the issues on trial. That other funds may, or may not, have concentrated portfolios does not make it any more or less likely that the defendant had the intent to manipulate the prices of the securities alleged in the Indictment. Moreover, the defendant's attempt to normalize

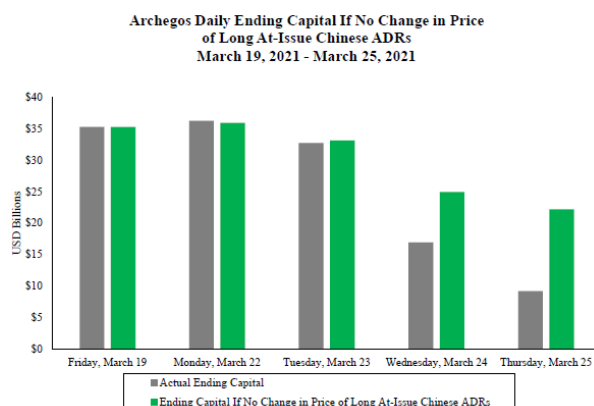
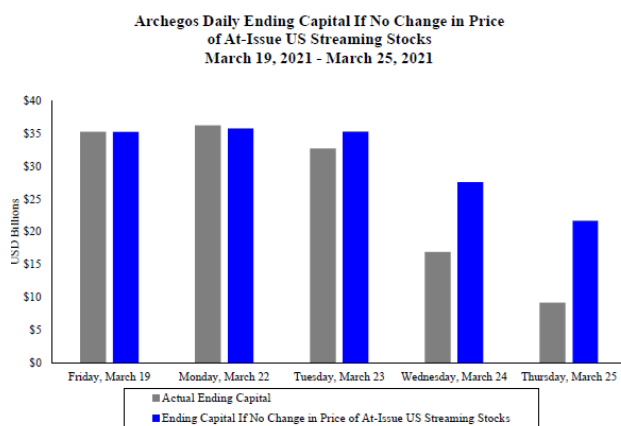
“concentrated” portfolios through these charts is a strawman. The issue in this case is not whether it is improper or common or uncommon to have a concentrated portfolio, but rather why Archegos’s portfolio became increasingly concentrated in certain securities in 2020 and 2021, and what individuals from Archegos represented to counterparties about the concentration of Archegos’s portfolio.

Second, the charts are misleading because they fail to account for the many differences between Archegos and the funds represented in the charts. For instance, certain of the funds that Dr. Johannes included in his charts are activist investors that try to influence company management; which Archegos was not. The holdings of these funds are also publicly reported, which is how the defense and Dr. Johannes knows about them, unlike Archegos, which amassed its holdings in secret.

Third, and relatedly, the introduction of these charts will waste time at trial. Were the Court to permit Dr. Johannes to present this testimony, the Government would need to cross-examine Dr. Johannes on how Archegos differed from each of the funds in the charts. Before going down that path, the Court should exercise its discretion and prevent the defendant from presenting this irrelevant evidence.<sup>2</sup>

***C. The Court Should Preclude Dr. Johannes’s “What If” Hypotheticals From the Final Week (Pages 25 and 26 of DX 9151)***

The defendant seeks to present the jury with a make-believe scenario about what might have happened to the Archegos portfolio if the prices of Viacom and Discovery had not declined, or, in the alternative, if the prices of the Chinese ADRs had not declined during the final week. Using no sound methodology whatsoever, Dr. Johannes calculates his best guess for the portfolio’s value in the following two charts:



<sup>2</sup> The Court has already stopped defendant Hwang from cluttering the record with information about the investment decisions of other funds. (See Tr. 2343:10-13 (sustaining objection to the question, “Dr. Taveras, are you aware that in 2022, Warren Buffet owned 50 percent of Viacom?”)). Pages 12 and 13 of DX 9151 should be precluded for similar reasons.

(KL-BH-00079285-86).

At the final pretrial conference, the Government objected to these charts and to Dr. Johannes's related testimony. The Court agreed with the Government that the defendant's notice was improper. (Apr. 11, 2024 Tr. 34-35). The defendant offered to supplement his notice, which he did on June 15, 2024, explaining the following:

Professor Johannes will testify regarding the week of March 22 and factors that contributed to the decline in the prices of the at-issue securities. He will testify that the declines in the stock prices of Viacom and Discovery were large compared to historical experience. He will similarly testify that the declines in the Chinese ADR prices were large compared to historical experience. He will also testify that the market as a whole was up slightly during the week of March 22 and therefore Archegos's short hedges did not offset the declines in the at-issue long securities.

(June 15, 2024 Ltr. from J. Estes to Gov't, attached hereto as Exhibit B).

But the defendant's new language cannot save the otherwise speculative charts found on Pages 25 and 26 of DX 9151. The defendant has failed to describe the analysis Dr. Johannes undertook to identify the counterfactual scenarios he posits, or to assess which, if any, of those scenarios would be plausible. Nor has Dr. Johannes done any analysis to allow him to opine in any reliable way that the Archegos portfolio would have responded to these imaginary scenarios in the manner Dr. Johannes assumes. Indeed, it is not clear that Dr. Johannes's opinions derive from any analysis that could be replicated or tested, is of a sort used by economists, or has been applied in accordance with any particular professional standards. *Cf. United States v. Williams*, 506 F.3d 151, 160 (2d Cir. 2007) (describing indicia of reliability).

In addition to being unreliable, the "what if" testimony will be unhelpful to the jury. A trial court should not admit expert testimony that is "directed solely to lay matters which a jury is capable of understanding and deciding without the expert's help." *United States v. Mulder*, 273 F.3d 91, 104 (2d Cir. 2001). As the crux of Dr. Johannes's "what if" testimony appears to be that Archegos's portfolio could have survived the week of March 22, 2021, if its largest positions had not declined in value, then the jury will not need expert assistance to understand it: if stock prices had not gone down, a portfolio tied to those stock prices would not have gone down either.

Moreover, speculation about what could have happened the week of March 22, 2021, is not relevant to the jury's task of assessing whether the charged schemes existed and if so whether the defendants joined them. No element of the charged offenses relates to proving or disproving the counterfactuals posited by Dr. Johannes, and, of course, there will be no evidence that the defendants acted in reliance on some similar type of counterfactual analysis. The helpfulness standard "requires a valid scientific connection to the pertinent inquiry as a precondition to

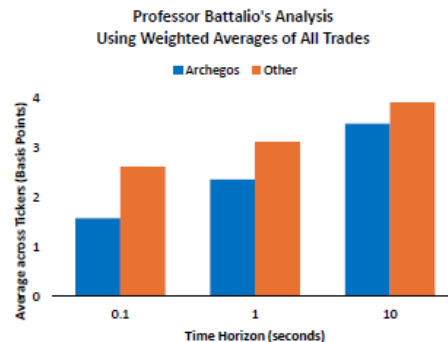
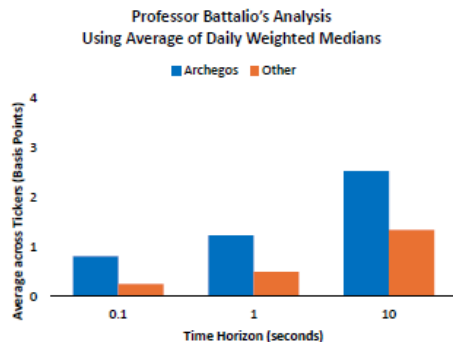
admissibility.” *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579, 591-92 (1993). No such connection exists here.

## II. The Government’s Objections to Dr. Wahal’s Testimony and DX 9152

Defendant Hwang also appears to be preparing to call Dr. Wahal to present 26 pages of summary charts contained within DX 9152. A copy of DX 9152 is attached hereto as Exhibit C.

The Government has three main objections to DX 9152.

First, the Government objects to the inclusion in DX 9152 of any charts that Professor Battalio, and not Dr. Wahal, prepared. Specifically, on pages 4 and 26 of DX 9152, the defense has included two charts that Professor Battalio prepared and testified about at trial. An excerpt from page 26 is included below, with Professor Battalio’s chart on the left and Dr. Wahal’s revised chart on the right:



(KL-BH-00076109).

The defense seems to have included charts from Professor Battalio next to charts from Dr. Wahal in order to compare the results of the analysis conducted by Professor Battalio with the results of a different analysis conducted by Dr. Wahal. But that type of comparison is argumentative in nature, and improper for a summary chart under Rule 1006 of the Federal Rules of Evidence. *See Peat, Inc. v. Vanguard Research, Inc.*, 378 F.3d 1154, 1159-60 (11th Cir. 2004) (“[B]ecause ‘summaries are elevated under Rule 1006 to the position of evidence, care must be taken to omit argumentative matter in their preparation lest the jury believe that such matter is itself evidence of the assertion it makes.’” (quoting *United States v. Smyth*, 556 F.3d 1179, 1184 n.12 (5th Cir. 1977))). Dr. Wahal’s testimony should remain focused on his analysis, and the defendant should not be given an opportunity for an early and extra summation through his direct examination of his expert. The Court should direct the defendant to remove Professor Battalio’s charts from DX 9152.

Second, the Government objects to the mislabeling of the analysis that Dr. Wahal performed as if it were analysis conducted by Professor Battalio. Specifically, on pages 22 to 26

of DX 9152, Dr. Wahal appears to have modified Professor Battalio's cumulative price change and midpoint change analyses. But instead of labeling these charts as *Dr. Wahal's* analysis, the defense has instead used the label "Professor Battalio's Analysis" or "Professor Battalio's Cumulative Price Change." That is misleading for the obvious reason that Dr. Wahal, not Professor Battalio, conducted these analyses. DX 9152 should be revised accordingly.<sup>3</sup>

Third, throughout DX 9152, there are several references to certain files that Professor Battalio used as part of his analysis and that were purportedly "not disclosed by the prosecution." (*See* DX 9152 at 4, 22-25). There is no permissible purpose for the defendant to include language about disclosed (or undisclosed) files in his slides. To the extent Dr. Wahal is trying to suggest that his analysis was handicapped in some way, that is improper, and it is also untrue. The Government turned over the files Professor Battalio used, and if the defense believes they are missing something, they should request it from the Government instead of airing their grievances before the jury.

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For the reasons set forth above, the Government respectfully requests that the Court preclude the defendant Bill Hwang from offering certain misleading, irrelevant, and argumentative slides and related testimony through Dr. Johannes and Dr. Wahal.

Respectfully submitted,

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Cc: Counsel of Record (via ECF)

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<sup>3</sup> The Court also should preclude Dr. Wahal from summarizing, either in charts or in his testimony, the methodologies that Professor Battalio used to conduct Professor Battalio's analyses. Professor Battalio already testified about those methodologies and analyses.